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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/725,032	11/29/2000	Mikio Sanada	35.C14959	8953

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16
EXAMINER

NOLAN, SANDRA M

ART UNIT

PAPER NUMBER

1772

DATE MAILED: 08/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/725,032

Applicant(s)

SANADA ET AL.

Examiner

Sandra M. Nolan

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-71 is/are pending in the application.
- 4a) Of the above claim(s) 1-5 and 23-71 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

Claims

1. Claims 1-71 are pending.

Election/Restrictions

2. Applicant's election of Group III, claims 16-22, in Paper No. 7 (the 22 October 202 response) is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
3. The restriction requirement is made final.
4. This application contains claims 1-15 and 23-71 drawn to inventions nonelected with traverse in Paper No. 7. A complete reply to any final rejection in this case must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Title and Specification

5. The new title is acceptable.
6. The substitute specification added via Paper No. 9 has been entered.

Objections and Rejections Withdrawn

7. The objection to claims 16-22 and the 35 USC 112 rejections set out in sections 9 through 14 of the 19 December 2002 office action (Paper No. 8) are withdrawn in order to apply the new rejections set forth below.

8. The 35 USC 102 rejection of claims 16-21 as anticipated by Taskier (US-3,853,601), as recited in section 17 of Paper No. 8, is withdrawn in order to apply the new rejections set forth below.

9. The 35 USC 102 rejection of claims 16-22 as anticipated by Booth (US 5,952,077), as set out in section 18 of Paper No. 8, is withdrawn in order to apply the new rejections recited below.

New Rejections

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 16-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The new language of claim 16, in section c) thereof, states that the polymer compound that is provided to (i.e., contacted with) the surface of the element (i.e., the substrate) is "obtained by bonding finely fractionalized polymers with each other after being finely fractionalized by a catalyst for polymer cleavage.

If the polymer is fractionalized (i.e., cleaved by the cleavage catalyst), how is it still a polymer?

If the polymer compound provided to the substrate is a polymer, why is it characterized as having been made by bonding fragments? Why isn't it characterized by its chemical structure (e.g., as a polyoxyalkylene/polydimethylsiloxane*)?

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Please clarify the claims.

*Note that, at page 19, par. 0085, applicants say that their polypropylene substrate is contacted with a polyoxyalkylene/polydimethylsiloxane polymer and in claim 18, they recite a polyalkylsiloxane containing a hydrophilic group as the polymer compound.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. Claims 16 and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Taskier.

Taskier is discussed in section 17 of Paper No. 8.

The language in c) of claim 16 is interpreted to mean that the fragments of fractionalized polymer have in fact (re)polymerized before or during their contact with the surface of the element. Therefore, the element is coated/treated with the polymer and not with fragments thereof. See par. 0085 of applicants' specification.

Claims 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by JP-62267359A (abstract).

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JP 62267359A ("JP-359") teaches organopolysiloxanes containing alkylene oxide side chains (see G in the first paragraph of the abstract) that are used to treat (title) fibers of polyethylene (PE) or polypropylene (PP) (last sentence of the use/advantage section). The fibers may be in nonwoven articles (same sentence).

See par. 0085 of applicants' specification and applicants' claim 18.

Polyalkylene oxide groups are well known hydrophilic moieties.

Fibers are deemed to have circular parts/curved planes.

14. Claims 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by JP-63211369A (abstract).

JP 63211369 ("JP369") teaches PP spun-bonded nonwoven fabric (last paragraph) treated with a polysiloxane-polyoxyethylene copolymer (last line of the abstract).

See par. 0085 of applicants' specification and applicants' claim 18.

Polyalkylene oxide groups are well known hydrophilic moieties.

Fibers are deemed to have circular parts/curved planes.

15. Claims 16 and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Cardiff et al (EPO 0542 485 A1).

Cardiff teaches organosilicon compounds containing 2+ siloxane groups per molecule and having polyoxyalkylene groups therein (page 5, lines 52-56). The compounds are used to treat polyethylene substrates (page 7, lines 2-4).

See par. 0085 of applicants' specification and applicants' claim 18.

Polyalkylene oxide groups are well known hydrophilic moieties.

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17. Claims 16-21 are rejected under 35 USC 102(e) as anticipated by Schrock et al (US 5,998,650).

Schrock teaches organosilicon compounds with amino-alkylene oxide functional groups (abstract) that the use to treat synthetic fibers to make them hydrophilic (col. 10, lines 3-20).

See par. 0085 of applicants' specification and applicants' claim 18.

Polyalkylene oxide groups are well known hydrophilic moieties.

Fibers are deemed to have circular parts/curved planes.

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claims 16, 18, 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 01030637 (abstract).

JP 01030637 ("JP-637") teaches titanium dioxide particles coated with alcohol/polyoxyalkylene and siloxane polymer (last paragraph of the abstract). In the penultimate sentence of the abstract, the reactivity of the titanium dioxide with the polyoxyethylene compound is taught.

It would have been obvious to one having ordinary skill in the art at the time that the invention was made to react the siloxane and the polyoxyalkylene compounds in the

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presence of the particles in order to insure that the surface of the particles was completely treated.

The motivation to react the siloxane and the polyoxyalkylene in the presence of the particles is found in the penultimate sentence of the abstract, where the reactivity of the titanium dioxide with the polyoxyethylene compound is taught.

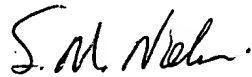
Response to Arguments

20. Applicant's arguments with respect to claims 16-22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication should be directed to the Examiner, Sandra M. Nolan, whose telephone number is 703/308-9545. The Examiner can normally be reached on Monday through Thursday, from 6:30 am to 4:00 pm, Eastern Time.

If attempts to reach the Examiner by telephone are unsuccessful, her supervisor, Harold Pyon, can be reached at 703/308-4251. The general fax number for the art unit is 703/305-5436. The fax number for after final communications is 703/872-9310. The receptionist answers 703/308-0661.



S. M. Nolan
Patent Examiner
Technology Center 1700

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